

**CLAIMS**

1. Method of preparing nanoparticles, having a size of less than 1  $\mu$ m, for the administration of active ingredients, characterised in that it comprises the steps of:
- 5 a) dissolving a biodegradable polymer together with a polyoxyethylene-derived block copolymer in an organic solvent, the weight ratio of both polymers being between 1:0.1 and 1:3;
- 10 b) adding, with stirring, the solution obtained to a polar phase, wherein the biodegradable polymer has low solubility, precipitating the polymer and forming the nanoparticles;
- 15 c) eliminating the organic solvent;
- d) isolating the particles
- where the active ingredient is dissolved in the organic solvent used in a) before or after step a), or is dissolved in a small volume of the aqueous phase, which is
- 20 then dispersed in the organic solvent used in a), before or after step a).
2. Method according to claim 1, characterised in that it comprises an additional step after e) of lyophilising
- 25 the nanoparticles obtained.
3. Method according to any of claims 1 and 2, characterised in that the biodegradable polymer is a polyester.
- 30 4. Method according to any of claims 1 and 2, characterised in that the biodegradable polymer is a polyanhydride.
- 35 5. Method according to claim 3, characterised in that

the polyester is selected from polycaprolactone, polylactic acid, polylactic co-glycolic acid and their mixtures.

5 6. Method according to any of claims 1 to 5, characterised in that the block copolymer is a poloxamer.

7. Method according to claim 6, characterised in that the poloxamer has a molecular weight comprised between  
10 1,000 and 25,000 Daltons.

8. Method according to any of claims 1 to 5, characterised in that the block copolymer is a poloxamine.

15 9. Method according to claim 8, characterised in that the poloxamine has a molecular weight comprised between 1,000 and 25,000 Daltons.

10. Method according to any of claims 1 to 9,  
20 characterised in that the active ingredient is selected from molecules with therapeutic properties, vaccinations and cosmetic ingredients.

11. Method according to any of claims 1 to 10,  
25 characterised in that the weight ratio of both polymers is between 1:1 and 1:3.

12. Nanoparticles for the administration of pharmaceutically- or cosmetically-active ingredients,  
30 having a size of less than 1  $\mu$ m, which can be obtained using the method according to any of claims 1 and 3 to 10.

13. Lyophilised nanoparticles for the administration of pharmaceutically- or cosmetically-active ingredients,  
35 having a size of less than 1  $\mu$ m, which can be obtained

using the method according to claim 2.

14. Compositions characterised in that they comprise nanoparticles, according to any of claims 12 and 13.

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15. Pharmaceutical or cosmetic compositions, characterised in that they comprise nanoparticles, according to any of claims 12 and 13.

10 There follow 7 sheets of drawings numbered correlatively.